

### **REMARKS**

Claims 86-132 are currently pending in the Application. Claims 76-85 have been cancelled. Claims 86, 92, 98, 103, 109, 110, and 115 have been amended to overcome the Examiner's §112, second paragraph rejections (discussed in greater detail below) and to more clearly recite the present invention. New claims 122-132 have been added to alternatively recite the present invention. Support for new claims 122-132 and the amendments to claims 86, 92, 98, 103, 109, 110, and 115 may be found, for example, in the specification at paragraphs 116-117 and in FIGS. 12A and 12B. Accordingly, no new matter has been added to the application by the foregoing amendments.

It should be noted that the references to Applicant's "Specification" herein refer to the Substitute Specification submitted with the Declaration of Douglas J. Ryder on July 25, 2003. Where appropriate, citations are made with respect to specific paragraph numbers of the Substitute Specification.

### **CLAIM REJECTION—§ 112, FIRST PARAGRAPH**

The Examiner has rejected claims 76-121 under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement. Specifically, the Examiner argues:

The claims recite a first set of consumers and retrieving demographic information for a second set of consumer[s], wherein there is an overlap between the first set and second set of consumers; applying heuristic rules for a third set of consumers[,] wherein the [third] set of consumers includes a subset of the first set of consumers; and d[e]riving a fourth set of consumers likely to be interested to a particular advertisement[,] wherein the fourth [set] includes consumers within the third set. All these steps are not taught in applicant's specification. Applicant's specification teaches generating subscriber profiles from transaction and demographic information, however does not teach taking the steps recited in the claims. Action, at page 2 (corrections added for clarity).

At the outset, Applicants respectfully submit that (a) the Examiner has not met the burden for establishing a *prima facie* case for lack of written description by clear and

convincing evidence; and (b) it is unclear to Applicants which aspects of the claims appear to the Examiner to be unsupported by the specification.

#### **A. Standard for § 112, First Paragraph Rejections**

Section 2163 of the MPEP explicitly states:

A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption... The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97. In rejecting a claim, the examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion. These findings should:

(A) Identify the claim limitation at issue; and

(B) Establish a prima facie case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of "unpredictability in the art" is not a sufficient reason to support a rejection for lack of adequate written description.

In sum, for the Examiner to overcome the presumption of adequate description, the Examiner must: 1) identify the claim limitation at issue; and 2) present a preponderance of evidence, including express findings of fact, why a person skilled in the art would not recognize in Applicants' disclosure a description of the invention recited in the claims. Respectfully, Applicants submit that the Examiner has not met this burden.

Initially, the Examiner has not identified all of the claim limitations at issue. The Examiner has rejected claims 76-121 as failing to meet the written description requirement. Yet, the Examiner has only vaguely identified language, in paraphrase, from independent claim 76. Applicants are therefore left without any understanding as to which claim elements from claims 77-121 the Examiner finds objectionable.

Additionally with respect to claim 76, the Examiner's blanket rejection of the entire claim in paraphrase is still improper because it is unclear to Applicants, by virtue of the paraphrasing, which aspects of the claim the Examiner finds objectionable. Applicants are unsure, for example, whether the Examiner objects to the division of consumers into a plurality of subgroups, or whether the Examiner objects to the substance of each of the steps performed on the subgroups. As such, the precise claim element(s) at issue have not been appropriately identified by the Examiner. Furthermore, the Examiner has not provided any evidence, including any express findings of fact, to indicate that the objected-to claim language is not supported in Applicants' specification. At most, the Examiner generally alleges a lack of support. This is not sufficient under the MPEP.

Accordingly, to the extent the Examiner's concerns are not adequately addressed by the following discussion, Applicants respectfully request that the Examiner clearly identify all claim language at issue and provide the necessary evidence, including express findings of fact, supporting why the Examiner believes the objected-to claim elements are not supported by Applicants' specification.

#### **B. Support for Claim Limitations**

In a good-faith attempt to address the substance of the Examiner's rejection in as efficient a manner as possible, but without prejudice to the foregoing objections, Applicants have identified at least some of the sections of the specification that support the claim language believed to be at issue. Since only paraphrased language from claim 76 was specifically identified by the Examiner, however, Applicants can only respond to those elements that Applicants believe to be indicated by the paraphrased language. Although claim 76 has been cancelled, Applicants respectfully submit that the following discussion is applicable generally to the other rejected claims as well as to specific corresponding elements. Therefore, to the extent the Examiner finds other elements from the remaining rejected claims to be similar and to suffer from the same alleged lack of support in the specification, Applicants respectfully request that the following response be considered in light thereof as well.

### 1. Subgroups or Sets of Consumers

To the extent the Examiner rejects Applicants' claiming the division of consumers into subgroups, Applicants note that it is well known in the art that marketers subdivide consumers into groups, subgroups, sets, markets, submarkets, and so forth, for the purposes of study, analysis, categorization, and marketing efforts. Applicants note that this concept is adequately reflected throughout the specification. For example, the specification explicitly states:

Thus, in accordance with the principles of the present invention, the overall subscribership may be divided into **subgroups** (smaller groups), and the advertisement may be displayed only to the **subgroup** that is most interested in the advertisement and is most likely to purchase the product. FIG. 1B illustrates an exemplary case where subscribers are divided into **subgroups**, and the advertisement is displayed only to a **subgroup** of the subscribers.

By forming **subgroups** and targeting advertisements to one or more **subgroups**, the effectiveness of the advertisements may be greatly increased, and overall advertisement success rates may be increased. . . .FIG. 1C illustrates an exemplary case where different success rates are determined by measuring products or services that were purchased as the result of the viewing of an advertisement. As can be seen, the highest success rate corresponds to the **subgroup** that finds the advertisement to be extremely applicable, and the lowest success rate corresponds to the **subgroup** that finds the advertisement least applicable. Specification, paragraphs 60-61 (emphasis added).

As such, it is clear that Applicants' disclosure supports dividing consumers into subgroups (a synonym for "sets") for the determination of more effective advertising techniques. It is implicit in the concept of a subgroup, or set, moreover, that two or more subgroups, or sets, may overlap one another. Applicants also respectfully submit that the above-cited portion of the specification is exemplary in nature, and does not necessarily reflect the extent to which the specification supports the recitation of sets or subgroups of consumers in Applicants' claims.

## 2. Substance of the Steps of Applicants' Method

Regarding the other elements of claim 76 that appear to have been rejected by the Examiner, the following summary provides examples of portions of the specification that support these features. Note, however, that this selection of citations to the specification is only exemplary in nature and is not intended to be an exhaustive list of those portions of the specification that support Applicants' claims. Support for the following elements, taken from independent claim 76, can be found, for example, at the following locations within the specification:

CLAIM 76 ELEMENT	SPECIFICATION LOCATION
Retrieving demographic information for a set of consumers	Paras. 65-67 ( <i>e.g.</i> , "input is received. . . in the form of subscriber profiles"); Para. 73 ( <i>e.g.</i> , "the subscriber profile vector. . . can be in the form of a demographic profile"); Paras. 74-76, 86-94, 149-152, 158, 169, and 178.
Applying heuristic rules for a set of consumers	Paras. 116-118 ( <i>e.g.</i> , "The first type [of heuristic rule] links an individual's [ <i>i.e.</i> , consumer's] viewing characteristics to demographic characteristics such as gender, age, and income level."); Paras. 126-128 at pp. 22-23 ( <i>e.g.</i> , "the heuristic rules 460 are applied to both the subscriber selection data 410 and the program characteristics vectors 450"); Paras. 120-122, 126, and 188.
Deriving a set of consumers likely to be interested in a particular advertisement	Paras. 11-13 ("The present invention is directed at a system and method for providing subscribers/consumers with advertisements that are more directed to their lifestyles."); Paras. 65-68, 161, and 170.

Applicants believe these are the only elements to which the Examiner has specifically pointed as lacking in written description in the specification. Accordingly, Applicants respectfully submit that the specification provides a written description sufficient to enable one skilled in the art to make and use the invention recited in claims 86-132. To the extent Examiner believes other elements are lacking in written description, Applicants respectfully reiterate their request for clarification of the

Examiner's concerns. Claims 76-85 have been canceled. Reconsideration and withdrawal of the Examiner's §112, first paragraph rejection are respectfully requested.

**CLAIM REJECTIONS—§ 112 SECOND PARAGRAPH**

The Examiner has rejected claims 76-121 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection.

At the outset, it should be noted that with respect to negative limitations, § 2173.05(i) of the MPEP explicitly states:

The current view of the courts is that there is nothing inherently ambiguous or uncertain about a negative limitation. . . . So long as the boundaries of the patent protection sought are set forth definitely, albeit negatively, the claim complies with the requirements of 35 U.S.C. 112, second paragraph. . . . Older case law, however, disfavored negative limitations, since "they tended to define the invention in terms of what it was not, rather than pointing out the invention." *In re Schechter*, 205 F.2d 185, 98 U.S.P.Q. 144 (CCPA **1953**). ***This view, however, is not the modern legal standard***, which requires simply that "the boundaries of the patent protection sought are clear." *In re Barr*, 444 F.2d 588, 170 U.S.P.Q. 330 (CCPA 1971). (emphasis added).

Applicants respectfully submit that all of the present claim elements, including those elements that are expressed in a negative fashion, fulfill the requirements of the present legal standard.

**A. "Discretionary Elements" Claims**

The Examiner has rejected claims 76, 86, 92-97, 109, and 115, arguing that the following negative language regarding "discretionary elements" is impermissible:

<b>“DISCRETIONARY ELEMENTS”</b>	
<b>CLAIM LANGUAGE</b>	<b>ORIGINATING CLAIM(S)</b>
“the discretionary elements include target market characteristics which need not be representative of an actual existing market or single purchase segment”	Claim 76
“discretionary element is not representative of a single purchasing element”	Claim 86
“the discretionary element not directly identifiable from consumer transaction records”	Claim 86
“discretionary element includes a selection of target market characteristics not typically associated with item being advertised”	Claim 92
“consideration not representative of any particular group of present consumers of the item”	Claims 93 and 94
“target market characteristics are not representative of actual consumers of the item”	Claim 95
“target market characteristics are not representative of actual existing market”	Claim 96
“target market characteristics are not representative of a single purchasing segment”	Claim 97
“the discretionary elements include target market characteristics which need not be representative of an actual existing market or single purchase segment”	Claim 109
“wherein the advertisement profile includes a selection of target market characteristics not typically associated with item being advertised”	Claim 115

Specifically, the Examiner argues:

It is unclear what the discretionary elements include, since as claimed it can include one that represent[s] actual existing market[s] or not; Applicant by defining the invention in terms of what it is not, rather than pointing out the invention, rendered the claim indefinite. Applicant fails to distinctly and particularly point out what he invented. (see pages 3-4 of the Action; emphasis added).

Respectfully, as the highlighted language in the Examiner’s statement is similar to the highlighted language taken from *In re Schechter*, cited above, it appears that Examiner is improperly relying upon old case law to support the rejection.

Applicants respectfully submit that each of the rejected elements does, in fact, particularly point out and distinctly claim a feature of Applicant's invention, since: (a) the negative limitations serve only to exclude specific elements from the claimed invention; and (b) the boundaries of the patent protection sought are clear. Specifically, in at least one place, the specification discusses, and therefore implicitly defines, "discretionary elements" as follows:

Because advertisements can be targeted based on a set of demographic and product preference considerations which may not be representative of any particular group of present consumers of the product, the ad characterization vector can be set to identify a number of demographic groups which would normally be considered to be uncorrelated. Because the ad characterization vector can have target profiles which are not representative of actual consumers of the product, the ad characterization vector can be considered to have discretionary elements. When used herein the term discretionary refers to a selection of target market characteristics which need not be representative of an actual existing market or single purchase segment. (Specification, paragraph 161).

In other words, because it is desirable to target advertisements to new market groups, it is necessary to define the characteristics of such new or proposed markets without regard to any currently existing market of consumers for the product or service being advertised. Such proposed markets may be hypothetical or experimental in nature. Stated differently, discretionary market segments are defined by characteristics chosen at the discretion of a marketer (hence the name "discretionary"). Applicants' invention is directed toward identifying and utilizing these new or proposed markets as defined by the marketer's discretion. To do so, a set of market characteristics may be formulated in a variety of ways not relevant to the invention, and it is convenient to call these characteristics "discretionary elements" because of how they are formulated. That is to say, discretionary elements are, in fact, characteristics of a proposed or hypothetical market. As such, the boundaries of the term "discretionary elements" are clearly defined. The negative language contained in the above-quoted paragraph simply functions to



exclude from the scope of the term those market characteristics that are associated with a known or actual market of existing consumers of the subject goods or services.

Regarding the specific language from the rejected claims, Applicants have cancelled independent claim 76, thus mooted Examiner's rejection. Further, Applicants have amended claim 109, replacing "need not be," with --are not--, thereby removing any potential ambiguity from the claim. With respect to claims 86, 92-97 and 115, Applicants respectfully submit that the negative limitations of concern to the Examiner are proper and adequately described in the specification for the reasons discussed above. In view of the foregoing remarks and amendments, Applicants respectfully submit that claims 86, 92-97, 109 and 115 are, therefore, in compliance with § 112, second paragraph.

**B. "Non-Transaction Related Consumer Attributes" Claims**

The Examiner has further rejected independent claims 110 and 115 on the basis that the phrase "non-transaction related consumer attributes" is indefinite.

Although not necessarily agreeing with the Examiner, to further prosecution, Applicants have amended independent claims 110 and 115 to replace the "non-transaction related consumer attributes" with --consumer characteristics--. Accordingly, independent claims 110 and 115 are believed to be recite definite subject matter. Reconsideration and withdrawal of the Examiner's §112, second paragraph rejections of claims 76, 86, 92-97, 109, 110 and 115 are respectfully requested.

**CLAIM REJECTION--§ 102(e)**

The Examiner has rejected claims 76-78, and 80-121 as being anticipated under 35 U.S.C. § 102(e) over U.S. Patent No. 6,463,585 to Hendricks et al. ("Hendricks").

Hendricks teaches a system for allowing targeted advertising to be directed to television terminals connected to an operations center or cable headend via a switched digital video network. Supplemental feeder channels are used to carry a plurality of

advertisements that can be inserted into a viewing channel during an advertisement opportunity. Viewers are arranged according to a group assignment plan based upon factors such as area of dominant influence, ZIP code, and household income. A switching plan is used to determine whether to substitute the existing advertisement with an advertisement from a feeder channel, and if so, which advertisement should be substituted. Hendricks describes the components responsible for selecting advertisements based upon viewer-based data only as “correlation algorithms.” *See* Hendricks, col. 69, line 61–col. 76, line 11. Hendricks is silent with respect to how the correlation algorithms work.

For a rejection under § 102(e) to be proper, a reference must disclose, either explicitly or inherently, each and every element of the claimed invention. Applicants respectfully submit that Hendricks does not teach each and every element recited in independent claim 86.

Independent claim 86, as amended, recites:

A method for identifying consumers likely to be interested in a particular advertisement, the method comprising:

accessing a plurality of consumer transaction records for a first set of consumers, wherein the consumer transaction records for a consumer are generated at least in part from a plurality of purchases for the consumer;

accessing demographic information for a second set of consumers, wherein the demographic information describes at least one demographic attribute of the second set of consumers, and wherein there is an overlap between the first set of consumers and the second set of consumers such that at least a subset of the second set of consumers and at least a subset of the first set of consumers are the same; and

utilizing a processing means to apply an operator to at least some subset of the overlap to create a third subset of consumers likely to be interested in the particular advertisement, wherein the operator includes at least one discretionary element of interest to an advertiser, wherein the at least one discretionary element is not directly identifiable from consumer transaction records and the at least one discretionary element is not representative of a single purchasing segment, and wherein application of the advertisement specific operator produces a target list of

consumers having the at least one discretionary element of interest to the advertiser. (emphasis added).

Hendricks does not disclose applying an operator to create a subset of interested consumers, the use of discretionary elements generally, nor specifically, the use of discretionary elements that are neither directly identifiable from consumer transaction records nor representative of a single purchasing segment. At most, Hendricks teaches an unspecified “correlation algorithm” in order to identify consumers for the purposes of selecting advertisements. The details of how Hendricks’ correlation algorithms work, however, are not explained. Therefore Hendricks does not teach the use of operators as recited in claim 86. Furthermore, since Hendricks provides no substantive details regarding the inner workings of the correlation procedures, Hendricks does not teach the use of discretionary elements generally, much less the use of discretionary elements that are “not directly identifiable from consumer transaction records” and “not representative of a single purchasing segment,” as recited in independent claim 86. Thus, Hendricks does not disclose all of the features of independent claim 86.

Regarding independent claim 92, Hendricks does not disclose “accessing a discretionary element for an advertisement,” or “utilizing a processing means to perform a linear operation on a consumer database.”

Regarding independent claim 110, Hendricks does not disclose “retrieving heuristic rules,” “utilizing a processing means to apply the heuristic rules,” or “performing a linear operation on the consumer database.”

Regarding independent claim 115, Hendricks does not disclose “a secure correlation server to perform a set of linear operations on at least a subset of the data gathered by said secure profiling server.”

Regarding new independent claim 122, Hendricks does not disclose “selecting at least one discretionary element for the advertisement” or “performing a linear operation on the consumer transaction database.”

Thus, for the same reasons discussed above with respect to independent claim 86, Hendricks does not disclose all of the features of independent claims 92, 110, 115 and

122. Dependent claims 87-91, 93-109, 111-114, 116-121 and 123-132 are allowable at least by their dependency in independent claims 86, 92, 110, 115 and 122, respectively. Claims 76-85 have been canceled. Reconsideration and withdrawal of the Examiner's anticipation rejection of claims 76-121 are respectfully requested.

***Conclusion***

In view of the foregoing amendments and remarks, Applicants respectfully submit that the Examiner's rejections have been overcome, and that the application, including claims 86-132, is in condition for allowance. Reconsideration and withdrawal of the Examiner's rejections and an early Notice of Allowance are respectfully requested.

Respectfully submitted,

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